



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/689,014

10/20/2003

P. Douglas Kiester

UC1.PAU.24

4115

79782

7590

02/26/2009

Law Offices of Daniel L. Dawes  
5200 Warner Blvd, Ste. 106  
Huntington Beach, CA 92649

EXAMINER

NGUYEN, TUAN VAN

ART UNIT

PAPER NUMBER

3731

MAIL DATE

DELIVERY MODE

02/26/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/689,014	<b>Applicant(s)</b> KIESTER, P. DOUGLAS	
	<b>Examiner</b> TUAN V. NGUYEN	<b>Art Unit</b> 3731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14, 16-19 and 21-26 is/are pending in the application.
- 4a) Of the above claim(s) 1-13 and 23-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14, 16-22 and 26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. In previous Office action, claims 14-22 and 26 were examined and rejected.
2. This Office action is in response to the amendments filed on June 13, 2008.

#### ***Response to Amendment***

3. According to the amendment filed on June 13, 2008, claims 15 and 20 have been cancelled. Accordingly, claims 1-14, 16-19, and 21-26 are pending in this present application and claims 14, 16-19, 21, 22 and 26 are presented for examination.

#### ***Response to Arguments***

4. Applicant's arguments with respect to claims 14, 16-19, 21, and 22 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Objections***

5. Claim 22 is objected to because of the following informalities: claim 22 dependent from claim 20, however, claim 22 has been cancelled by the amendment filed on June 13, 2008. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**7. Claims 14, 16, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shubert et al. (U.S. Patent No. 7,188,628) in view of Dion (U.S. Patent No. 7,188,628).**

8. Shubert et al. disclose the invention as claimed (Figs. 1 and 5) including a method of oscillating a high speed burr including the steps of providing a motor source (ref. 502), connecting the motive source via a drive shaft assembly on axis (col. 5, line 26; ref. 504; ref. 505), oscillating the burr, on the axis, over a portion of a full circle (col. 5, line 60 - col. 6, line 1) at a rate effective for cutting hard matter (the nail) while leaving softer tissue unharmed (col. 4, lines 52-61), providing a burr that is unshielded and fully exposed allowing the cutting to take place in all directions (the user can move the device to any angle and still abrade hard matter (see Fig. 4A and 4B), and converting rotary motion to an oscillating motion (col. 5, lines 26-34 and col. 5, lines 60-61).

9. Shubert discloses the invention substantially as claimed except for the oscillatory rate (silent on the rate but the device does abrade hard matter), angle, cooling, clearing, and removing debris. Dion teaches a method of oscillating a high speed surgical burr (ref. 18) including the steps of oscillating the burr at a rate to cut hard matter (col. 4, lines 1-3; col. 7, lines 32-33), cooling and clearing the burr by fluid irrigation and fluid (col. 3, lines 28; col. 7, lines 11-16; ref. 118), and removing debris by suction (ref. 96; col. 3, lines 55-58). Therefore, it would have been obvious to have modified Shubert with a high oscillatory rate, as taught by Dion, in order to abrade hard matter and/or

bone, fluid irrigation, as taught by Dion, in order to cool and clear the burr of debris, and suction, as taught by Dion, in order to remove the abraded matter from the abrading area. Although Dion discloses having an inner tube rotation rate of, for example, between 100 rpm and 5000 rpm, it would have been obvious to one having ordinary skill in the art to have changed the motor to be able to produce higher rotation speeds, such as those set forth in the claim limitations. With respect to the limitation of oscillatory angle "over a portion of a full revolution of 180° or more". Noting that Figure 7A of Shubert's drawings discloses the oscillatory angle 707. It would have been obvious to one of ordinary skill in the art at the time the invention was made by the applicant have an oscillatory angle of 180° as claimed by the applicant, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

**10. Claims 19, 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shubert et al. in view of Dion further in view of Ciurana et al. (US 3,413,763).**

11. Shubert et al. as modified by Dion disclose the invention substantially as claimed except the step of partially rotating a driven shaft of the drive shaft assembly in a first sense of rotation by means of frictional coupling of the driven shaft to the driving shaft via a frictional telescopically engaged driving hub and a driven hub, and partially rotating the driven shaft in a second sense of rotation opposite to the first sense of rotation by means of a torsional spring coupled to the driven shaft, so that the driven shaft oscillates as the driving shaft rotates. However, Ciurana et al. disclose such a mechanism to provide a precise oscillation angle (col. 2, lines 23-36 and col. 3, line 50

to col. 4, line 40). It would have been obvious to one having ordinary skill in the art at the time of the invention to have modified Shubert et al. with the mechanism as taught by Ciurana et al., in order to oscillate the burr to cut bone with a precise oscillation angle. The details of the transfer element of Shubert are not disclosed but could be replaced by the system of Ciurana et al. in order to drive the rotational movement of the abrader/burr head in order to gain the advantage of provide a precise oscillation angle.

**12. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shubert in view of Dion.**

13. Shubert et al. disclose (Figs. 1, 5 and 7A) the invention as claimed including a method of oscillating a high speed burr including the steps of providing a motor source (ref. 502), connecting the motive source via a drive shaft assembly (col. 5, line 26; ref. 504; ref. 505), oscillating the burr over a portion of a full circle (col. 5, line 60 - col. 6, line 1) at a rate effective for cutting hard matter (the nail) while leaving softer tissue unharmed (col. 4, lines 52-61), and providing a burr that is unshielded and fully exposed allowing the cutting to take place in all directions (the user can move the device to any angle and still abrade hard matter (see Fig. 4A and 4B). Shubert does not disclose the oscillatory rate (silent on the rate but the device does abrade hard matter), cooling, clearing, and removing debris. Dion teaches a method of oscillating a high speed surgical burr (ref. 18) including the steps of oscillating the burr at a rate to cut hard matter (col. 4, lines 1-3; col. 7, lines 32-33), cooling and clearing the burr by fluid irrigation and fluid (col. 3, lines 28; col. 7, lines 11-16; ref. 118), and removing debris by suction (ref. 96; col. 3, lines 55-58). Therefore, it would have been obvious to have

modified Shubert with a high oscillatory rate, as taught by Dion, in order to abrade hard matter and/or bone, fluid irrigation, as taught by Dion, in order to cool and clear the burr of debris, and suction, as taught by Dion, in order to remove the abraded matter from the abrading area. Although Dion discloses having an inner tube rotation rate of, for example, between 100 rpm and 5000 rpm, it would have been obvious to one having ordinary skill in the art to have changed the motor to be able to produce higher rotation speeds, such as those set forth in the claim limitations.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUAN V. NGUYEN whose telephone number is (571)272-5962. The examiner can normally be reached on M-F: 9:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, AnhTuan Nguyen can be reached on 571-272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. V. N./  
Examiner, Art Unit 3731

/Anh Tuan T. Nguyen/  
Supervisory Patent Examiner, Art Unit 3731